

Notice of Allowability

Application No.

10/596,960

Examiner

/Edward Raymond/

Applicant(s)

BURCH ET AL.

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Letter filed 7/16/07.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 20060630
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. **Claims 1-16** are allowed.
2. The following is an examiner's statement of reasons for allowance: 1. A method for analyzing a sample of wafers, comprising the steps of: (a) identifying F failure metrics that are applicable to at least one circuit pattern on each wafer within the sample of wafers, where F is an integer; (b) identifying Z spatial and/or reticle zones on each wafer, where Z is an integer; (c) providing values for each of the F failure metrics, for each of the Z zones on each wafer; (d) defining a point for each respective wafer in an N-dimensional space, where $N=F*Z$, and each point has coordinates corresponding to values of the F failure metrics in each of the Z zones of the corresponding wafer; and (e) clustering the sample of wafers into a plurality of clusters of wafers using a computer, so that the wafers within each cluster are close to each other in the N-dimensional space, thereby identifying the plurality of clusters of wafers from the sample of wafers so that within each individual cluster, the wafers have a similar distribution of defects.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Erhardt et al. teach a full flow focus exposure matrix analysis and electrical testing for new product mask evaluation. Lin et al. teach a system and method of optically inspecting surface structures on an object. Steffan et al. teach an intra-tool defect offset system. Sugimoto teaches a failure analyzer with distributed data processing network and method used therein. Kulkarni et al. teach detecting groups of defects in semiconductor features space. Berezin et al. teach a method and system for declustering semiconductor defect data. Method and system for automated die yield prediction manufacturing. Bae teaches a method for detecting wafer defects. Berezin et al. teach method and system for automated analysis of semiconductor defect data.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Edward Raymond/ whose telephone number is 571-272-2221. The examiner can normally be reached on M-F 8:30-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/596,960
Art Unit: 2857

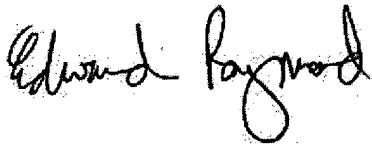
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward Raymond/
Primary Examiner
Art Unit 2857

Er

EDWARD RAYMOND
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Edward Raymond", written over a rectangular stamp.